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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/694,276

10/27/2003

William E. M. Jones

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2789

23307 7590 12/28/2006  
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EXAMINER

ECHELMEYER, ALIX ELIZABETH

ART UNIT

PAPER NUMBER

1745

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

12/28/2006

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

**Application No.**

10/694,276

**Applicant(s)**

JONES, WILLIAM E. M.

**Examiner**

Alix Elizabeth Echelmeyer

**Art Unit**

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 17-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16, 32 and 33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 March 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 6-18-04, 10-14-04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of the restriction in the reply filed on October 13, 2006 is acknowledged. The traversal is on the grounds that the subcombinations, not being found in different classifications, do not place a serious burden on the examiner to be examined together. This is not found persuasive because Group I was incorrectly classified in 429/91. It more properly belongs in 429/64, with control means responsive to battery condition sensing means with valve control. Group II belongs in 429/91 since it contains limitations to an alarm in communication with the pump sensor, and the examiner believes that this is not an obvious variation of Group I. If the invention of Group I is intended to eliminate the use of a worker to manage electrolyte levels, the alarm would be unnecessary and further would not be effective since the battery system of Group I is locked..

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 17-30 are withdrawn. Claims 1-16, 31 and 32 are pending and are rejected for the reasons given below.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-8 and 31-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Cheiky (US Patent 5,615,717).

Cheiky teaches a method and apparatus for supplying electrolyte to a battery (abstract). Cheiky teaches a supply valve for coupling the supply of electrolyte to the manifold, and a plurality of feed valves. A processor is used to control the valves (column 3 lines 14-21). Cheiky further teaches that the control unit is a microprocessor (column 4 lines 12-14).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 9, 10, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheiky in view of Kouzu et al. (US Patent 6,111,387).

The teachings of Cheiky as discussed above are incorporated herein.

Cheiky teaches the battery system but fails to teach a ventilated cover.

Kouzu et al. teach a battery power source (abstract). Endplates having holes are attached by screws on either end of the battery casing (Figures 7 and 13).

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It would be advantageous to attach a cover, such as the endplates of Kouzu et al., to the battery of Cheiky since such a cover would prevent outside contamination, such as foreign objects, from entering the battery.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to cover the battery of Cheiky as taught by Kouzu et al. in order to protect the battery.

7. Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheiky in view of Winter et al. (US Pre-Grant Publication 2003/0008204) and Gutlich et al. (US Patent 4,283,467).

The teachings of Cheiky as discussed above are incorporated herein.

Cheiky fails to teach a charging sensor or an air pump.

Winter et al. teach a leak detection system for a flowing electrolyte battery (abstract). An electric switch measures the current flowing in the battery. This measurement is sent to the controller to determine whether there is a leak by determining electrolyte level ([0044]).

As for the methods by which the sensor determines the level of claims 12 and 13, these processes are not given patentable weight since the sensor of Winter et al. accomplishes the same task.

It would be desirable to use the sensor of Winter et al. in the battery of Cheiky to determine liquid levels since it provides a quantitative method of finding liquid levels in the battery.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the sensor of Winter et al. in the battery of Cheiky since it provides a quantitative way to determine electrolyte levels.

Gutlich et al. teach a battery that includes transport tubes immersed in the electrolyte and connected to compressed air ducts. The air is mixed with the electrolyte to promote circulation (abstract).

Gutlich et al. further teach that mixing yields improved capacity and useful life for the battery (abstract).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to mix the electrolyte of the battery of Cheiky using air as taught by Gutlich et al. in order to improve the capacity and useful life of the battery.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alix Elizabeth Echelmeyer whose telephone number is 571-272-1101. The examiner can normally be reached on Mon-Fri 7-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Susy N. Tsang-Foster can be reached on 571-272-1293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Alix Elizabeth Echelmeyer  
Examiner  
Art Unit 1745

aee

MARK RUTHENSKY  
PRIMARY EXAMINER  
*Mark Ruthenky*  
12-21-2006